

DETAILED ACTION

Examiner's Amendment

1. An examiner's amendment to the record appears below. Should the changes and /or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.3.12. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.
2. The following claim has been amended upon agreement by applicant during a telephone conversation with Mr. Ningning Xu on 06/19/2008.
Amendments to claims 1, 11, 21, 25-26, and 30; and canceled claims 2-4, 7-9, 12-14, 17-19, 22-24, 27-29, and 31-33:

Claim 1 (Currently Amended):

A method for handling a large data object in a database system implemented in a computer system, said method comprising:

creating a handling structure comprising: at least
a reference to locate the large data object stored in the database system, the
reference being configured to point to a small value data object within the handling
structure itself provided that the small value data object is stored entirely within the
handling structure; [[and]]

information to return an interface to provide access to the large data object in the database system; and

a field having a value indicative of a length of time during which the handling structure is valid,

wherein partial update of the large data object referenced by the handling structure is processed by replacing only a portion of the large data object without updating the large data object in its entirety to avoid without incurring substantial negative impact on overall performance of the database system.

Claims 2-4 (Cancelled)

Claims 7-9 (Cancelled)

Claim 11 (Currently Amended)

A system for handling a large data object in a database system implemented in a computer system, said system method comprising:

a subsystem comprising a server computer for creating a handling structure comprising: at least

a reference to locate the large data object stored in the database system, the reference being configured to point to a small value data object within the handling structure itself provided that the small value data object is stored entirely within the handling structure; [[and]]

information to return an interface to provide access to the large data object in the database system; and

a field having a value indicative of a length of time during which the handling structure is valid;

wherein partial update of the large data object referenced by the handling structure is processed by replacing only a portion of the large data object without updating the large data object in its entirety to avoid without incurring substantial negative impact on overall performance of the database system.

Claims 12-14 (Cancelled)

Claims 17-19 (Cancelled)

Claim 21 (Currently Amended)

A computer-readable storage medium comprising computer-readable instructions for handling a large data object in a database system implemented in a computer system, said computer-readable instructions causing the computer system to perform a method comprising instructions for:

creating a handling structure comprising: at least a reference to locate the large data object stored in the database system, the reference being configured to point to a small value data object within the handling structure itself provided that the small value data object is stored entirely within the handling structure; [[and]]

information to return an interface to provide access to the large data object in the database system [[,] ; and

a field having a value indicative of a length of time during which the handling structure is valid;

wherein partial update of the large data object referenced by the handling structure is processed by replacing only a portion of the large data object without updating the large data object in its entirety to avoid without incurring substantial negative impact on overall performance of the database system.

Claims 22-24 (Cancelled)

Claim 25 (Currently Amended)

The computer-readable storage medium instructions of claim 21, wherein the method further comprises further comprising instructions for:
converting into a large data object with a corresponding handling structure, a data object having a type from a group of types consisting of text, ntext, and image data types.

Claim 26 (Currently Amended)

The computer-readable storage medium instructions of claim 21, wherein the method further comprises further comprising instructions for converting a data object into a large data object, wherein:

in an event that the data object is of a type, text, the data object is converted into a large data object of a type varchar(MAX);

in an event that the data object is of a type, ntext, the data object is converted into a large data object of a type nvarchar(MAX); and

in an event that the data object is of a type, image, the data object is converted into a large data object of a type varbinary(MAX), wherein the varchar(MAX), nvarchar(MAX), and varbinary(MAX) data types each comprise a handling structure type and a MAX value corresponding to a predetermined maximum size value.

Claims 27-29 (Cancelled)

Claim 30 (Currently Amended)

The computer-readable storage medium instructions of claim 21, wherein said handling structure is created by a handling structure factory in response to a need for a handling structure.

The Examiner's amendment has been made in order to place the application in a condition for allowance.

Reasons for Allowance

3. The following is an examiner's statement of reason for allowance:

Claims 1, 11, and 21 are considered allowable since the prior made of record and considered pertinent to the applicant's disclosure does not teach or suggest the claimed limitations. Broso (U.S. 6,615,219) or Becker (U.S. 6,301,579) taken individually or in combination, does not teach the claimed invention having a method for handling a large data object in a database system implemented in a computer system, said method comprising creating a handling structure comprising a reference to locate the large data object stored in the database system, the reference being configured to point to a small value data object within the handling structure itself provided that the small value data object is stored entirely within the handling structure; a field having a value indicative of a length of time during which the handling structure is valid; wherein partial update of the large data object referenced by the handling structure is processed by replacing only a portion of the large data object without updating the large data object in its entirety to avoid substantial negative impact on overall performance of the database system with a combination of all recitations as defined in claims 1, 11, and 21.

Therefore, claims 1, 5-6, 10-11, 15-16, 20-21, 25-26, and 30 are presently allowed.

4. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably

accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Inquiry

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Binh V. Ho whose telephone number is 571 272 8583. The examiner can normally be reached on M-F from 8:00AM - 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Don K. Wong can be reached on 571 272 1834. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Wilson Lee/
Primary Examiner, Art Unit 2163

6/20/08

Binh V Ho
Examiner
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